THE

MEDICAL AND SURGICAL REPORTER.

No. 1170.] PHILADELPHIA, AUGUST 2, 1879. [Vol. XLI.—No. 5.

ORIGINAL DEPARTMENT.

LECTURE.

AURAL THERAPEUTICS.

A Clinical Lecture, delivered February 27th, 1879,

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Reported by CHARLES W. KARSNER, M.D., Assistant to the Aural Department Jefferson College Hospital.

GENTLEMEN:—The reason is very often given for not recognizing aural surgery as a special department, that its advocates do not cure the many chronic cases of deafness that afterward float about from one practitioner to another, informing each that they were under the care of a specialist, without being improved. Gentlemen, is not this the case with all chronic diseases, no matter which organ of the body is affected, except it be a functional disorder? Every day of our life we hear of cases of diseases of the brain, eyes, lungs, heart, liver, kidneys, spleen, bladder, uterus, ovaries, and muscular apparatus, being discharged as incurable or to die, from the hands of the best and most learned in diagnosis, unexcelled in their knowledge of anatomy, physiology, and pathology; even experts in physical diagnosis. In the various acute affections of the human ear, I can refer with pride to the record on our clinical books, and show as good results as in any other of the out-door departments. And in our chronic cases of diseases of the ear, where there were no absolute changes, such as destruction of the organ or alteration of tissue, which so frequently follow long protracted disease, the result of our treatment will be found equal to any other department in the short period it has been in operation. (See report submitted to the Board September 30th, 1878.) A glance at the various tables in my "Manual of Diseases of the Ear,"* pages 56, 57, 58 and 59, from various authors, and our best authorities in aural surgery and medicine, will serve as a guide to the frequency of aural disease, with some results of treatment. I will briefly extract a few facts from them: of six hundred cases carefully recorded, in Howard Hospital and in private practice, the number cured was 241, improved, 194. In a similar table by Dr. Schwartze, of Halle, of 322 cases, 145 were cured and 122 improved. Of Dr. Moos's cases (chronic aural catarrh), 100 in all, there were 17 cured and 64 improved; and Prof. Gruber cured 326 cases and improved 128, in 763 cases.

A view of tables of cases will show a great preponderance of chronic affections, very many of them the result of neglected acute attacks, that were manageable if they had been diagnosed and treated in their early stages. The duration of the six hundred cases before referred to will give an idea of the neglected condition of many of the cases received by us for treatment, and our results will compare favorably, we think, with the condition of the patients when received:—

One year or less	277
Between 1 and 2 years	35
" 3 " 4 "	25
" 4 " 5 "	19
" 5 " 10 "	107
" 10 " 20 "	82
" 20 " 30 "	36
" 30 " 40 "	12
" 40 " 50 "	4
Over 50 years	2
" 75 "	1

* J. B. Lippincott & Co., Philadelphia.

In all diseases the prognosis is a matter of the gravest importance; and young gentlemen, you who are about to graduate, see that you make this a matter of careful study, and commit to memory the prognosis in most of the prominent diseases, so that you may inform your patient as to the chances, based on carefully recorded experience of others, and after a time, when you have had a sufficient number of cases, on your own account. I will refer you to my teachings on this subject, and will advise, in passing, not to give a hasty prognosis in any case, for it will depend largely upon the severity of the attack, the general health of the individual, the hereditary tendencies, and upon the duration. The great majority of practitioners, and we may say, with truth, even many general surgeons, are not well informed as to the nature of obscure diseases of the ear, and some of them are not provided with proper mirrors or a speculum to examine the ear, nor with a suitable text book, so as to understand how the ear should look when diseased (at this point the lecturer exhibited several illustrated works on diseases of the ear). Indeed, but few can tell a purulent otitis of the middle ear, with perforation of the membrana tympani, from a diffuse otitis of the meatus, and they constantly confound it with chronic suppuration of the external auditory canal, under the old term of "otorrhœa." Again, in summing up from my tables, the cases show that, instead of external disease of the ear, the majority of cases are serious and dangerous diseases of the internal and middle ear, for we find there are 742 cases of chronic inflammation and suppuration of the middle ear, to 138 cases of chronic inflammation of the external auditory canal. I am constantly receiving from well educated graduates of our own and other schools cases which, most unfortunately for the patients, illustrate this want of knowledge. A few lectures and demonstrations on the patients received at our clinic would most effectually prevent such dangerous mistakes.

I will now pass to the consideration of a few of the remedies which I find especially valuable in aural disease, and will endeavor in the brief time at my disposal to show as many cases as I can, so that you may not make such mistakes as those to which I have referred.

The action of aconite on the circulation and respiration is somewhat remarkable; after a few doses, of one to five drops of the tincture of the root, or the $\frac{1}{100}$ of a grain of the nitrate of aconitia, the number of the heart's beats are reduced to one-half the normal standard, say to forty in the minute, while it renders the breathing very much slower. Aconite affects the muscular substance of the heart and also the ganglionic nerves. Now, how will aconite act so as to be useful in ear diseases? In acute catarrh of the middle ear, with tonsillitis, in which the skin is dry, hot and burning, its judicious and careful use causes the skin to become moist, and subsequently bathed in a profuse perspiration. Acute otitis media, associated with pharyngitis, rarely fails to succumb in twenty-four hours, and the tonsils, from being livid, red, glazed and dry, will become reduced in size and bathed with mucus. And then, by the proper use of the spray or gargle of astringents, and nitrate of silver, with the Politzer air douche, the noises, pain and deafness will disappear. Another form of ear disease is chronic catarrh of the middle ear, in which the patient is very liable to catch cold, as it is often expressed. This is followed by subacute inflammation of the fauces, which become swollen, red and dry, this condition passing into the tonsils, uvula, arches of the soft palate, and up the Eustachian tubes or downward to the chest. This condition may have existed for years, with constant relapses. the whole appearance of the throat and orifices of the Eustachian tubes never becoming natural, but often clogged with tenacious mucus, or even by pus, also with patches of enlarged follicles. At other times the disease is found chiefly in the middle ear, in which, after the acute stage, there still remains fluid. This condition will be benefited by aconite, but it must be combined with belladonna or jaborandi. The dose is from one to three drops of the tincture of aconite with five drops of the tincture of belladonna, every three hours. The success of this treatment will depend upon the care with which it is followed up by a careful hardening and cleansing of the parts by means of cold outside the throat and astringents inside; above all, with the free use of quinine, in conjunction with nourishing food and outdoor exercise in fine weather. Now, there is a certain caution to be used in the use of aconite and belladonna; do not exceed the full dose in the twenty-four hours, nor trust the patient or nurse without careful watching, as aconite is an exceedingly powerful poison; one-twelfth of a grain of the crystallized alkaloid is sufficient to kill an adult. In a case of recovery from a poisonous dose (one ounce Fleming's tincture), the agents employed were twenty minims of the tincture of digitalis, hypodermically injected, and after twenty minutes, the man having revived sufficiently to swallow, a

fluid drachm of the tincture of digitalis, with ammonia and brandy, was given to him, and repeated twice within the hour, and the man recovered. The treatment of belladonna poisoning is evacuation of the stomach, opium and stimulants. Externally heat is applied, with flagellations, artificial respiration, etc.

Digitalis influences the ganglionic nerve centres of the heart and capillaries in such a way as to impart steadiness and force to the muscular fibres of the former, and improved elasticity to those of the latter, thus causing the streams of circulation to move with an equable and natural current into and out of every organ. By this regulation of the cerebral current of circulation various functional disturbances of the brain, ideal as well as sensory, like delirium, pseudopsia, tinnitus aurium, are ameliorated or permanently removed. *Quinine*, if the dose is large enough, acts on the auditory nerve centres, producing temporary tinnitus aurium or subjective sounds, which are modified by the use of hydrobromic acid in combination. It is also true of quinine that it is curative in certain forms of ear diseases of an intermittent character, or malarial neuralgia of the third branch of the fifth or trifacial nerves. Also in distressing tinnitus aurium arising in certain furunculous disease of the ear, in which the noises are a reflex irritation or action of the nervous system. *Strychnia* and its salts are agents which act in producing reflex action of the nervous system, and especially the spinal nerves; by its use loss of power or atrophy of the auditory and other nerves which supply motor and sensory action to the ear is relieved or improved. Strychnia is best administered by hypodermic injections of the sulphate, beginning with one-sixtieth of a grain daily, and gradually increasing, till by the end of a month the system of the individual may become, as we say, so tolerant as to bear one-quarter of a grain, yet we have known at such a time a slight contact or blast of air to produce convulsions or cause complete rigidity. The centres of the frontal lobes and the cerebral sensory centres, both of sight and hearing, are less amenable to the influence of strychnia than the spinal cord.

The *bromides of potassium, sodium, lithium and ammonium* exert upon reflex action an influence the opposite of that induced by strychnia; in diseases of the ear they modify it, and their influence extends to the sensory and ideal centers. It is possible by these agents to dull without destroying the reflex sensibility of the nervous system, and to act directly upon the cerebrum and spinal nerves, so that the visual and auditory centres perceive sights and sounds, and report them to the frontal lobes, where they are received with indifference. Another phenomenon which follows the administration of the bromidal preparations is that of sleep. This has been produced by its action on the vasomotor nerves, producing contraction of the capillaries, and especially so of those of the brain. Bromide of potassium in very large and repeated doses, on account of adynamia, which it sometimes causes, must frequently be suspended. In addition to weakness, retardation, and irregularity of cardiac action, the bromide of potassium may give rise to præcordial pain, or will sometimes improve the appetite and nourish the patient. In such cases it should be taken at meal times, or after, in a tumbler of milk. Bromide of sodium is a milder preparation, more easily borne by the stomach, and is to be preferred in the cases of nervous women, old people, or children, as it can be added to soup in the place of common salt. This can be employed in the various forms of nervous affections of the ear, in the dose of 15 to 30 grains in solution with syrup of red rose, as it is readily deliquescent, and will not keep in powder. The bromide of ammonium is a more stable preparation, and is best given with syrup of orange peel, in doses from one half to two drachms daily. This acts well in all spasmodic affections of the throat, larynx and glottis in children, as well as in hysterical persons, who often suffer from subjective noises in the brain and ears. Then there is another of the class which is termed the brominated camphor. This, like the hydrate of chloral, is an antidote to strychnia in doses of fifteen to thirty grains; also useful in nervous palpitations of the heart in 3½ to 4½ grains several times a day. It has also been found useful in sexual excitement and pollutions, attended with various noises in the head or ears, but in very stubborn cases the bromide of potassium with opium or tincture of veratrum viride (two or three drops on sugar, continued until slowing of the pulse is attained) acts sometimes much more satisfactory. In irritation from cold of the throat, nose or bladder, in doses of from three to eight grains, we have found the bromated camphor to remove the annoying difficulty. The *bromide of zinc* is to be prescribed only in pill, from 1½ to 2 grains, and gradually increased to 6 grains. It is found particularly useful in hysterical muscular spasm of the intrinsic or extrinsic muscles of the ear.

Chloral hydrate is very valuable in the pain of megrim, clavus, sick headache, in five-grain doses every three hours. This agent is also very

useful when associated with the bromides in neuralgia of the fifth, also the occipital and auricular nerves of the ear.*

Exhibition of Cases of Ear Disease.

The first set of cases which the Doctor brought before the class were diseased conditions of the auricle, as fibrous and other tumors, eczema, hemorrhagic and polypoid growths of the meatus, furunculous abscesses, with desquamative epithelial inflammation, and compared these, showing them the ordinary form of impacted cerumen, proving how very important it was to make a correct diagnosis, which, he stated, could best be accomplished by having seen and examined for themselves each variety of ear disease.

The second series of cases consisted of acute otitis media, catarrhal and purulent, occurring as the result of cold and of the exanthemata, the first occurring in the adult, the second in children. The new method of treatment was then shown the class by means of the "Gruber cones" of gelatine and glycerine, which he considered a great improvement over the old form in the hands of the patient.

The third class, six in number, which the Doctor exhibited, were cases of each variety of perforated membrani tympani, with disease of the middle ear, from the minute point of perforation to the case of almost entire loss of the membrane; also a rare case in a young lady who had a double perforation in one ear, and a single perforation in the other, which followed pneumonia. The lecturer brought one case of perforation before the class, who was able when the class was very still to pass the air so audibly through the Eustachian tube and perforation as to be heard by almost all present. Three clinical assistants went round the class, and with the proper speculum and mirror were able to show the students most of these interesting cases. The great importance of careful cleansing of the ear was dwelt upon, and all the most approved apparatus were shown and their mode of use explained.

A fourth class of cases were then exhibited, of acute and chronic disease of the ear without perforation, and the Doctor dwelt at some length upon alcohol and tobacco disease of the throat, Eustachian tubes, and middle ear, and in an illustrative case showed the decided improvement from giving up entirely the use of the *weed*, and the advantages of injections of warm solutions of glycerine in water into the middle ear by means of the Eustachian catheter and air douche.

At the conclusion of the lecture, which was listened to with deep attention, the Doctor dwelt upon the importance of each of the new graduates being prepared to treat diseases of the ear properly; because the first case which will present itself on opening an office may be an adult suffering from acute disease of the ear, or some little one on the very brink of convulsions from the same cause, which, if not recognized, might be bled and blistered for disease of the brain.

* For details of the action of this drug the Lecturer referred to his "Manual of Anæsthetic Agents, and their Employment in the Treatment of Disease," second edition, p. 209, published by Lindsay & Blakiston, Philadelphia, 1879.

COMMUNICATIONS.

THE RELATION OF AGE AND THE SEASONAL DEATH RATE.

BY T. S. SOZINSKEY, M.D., PH.D.,
Of Philadelphia.

In an article published in this journal some time ago, I presented abundant evidence to show that the death rate in the United States as a whole and in the city of Philadelphia varies with the season of the year. I now propose to determine whether the seasonal death rate varies also at different periods of life, and try to find out the reason or reasons for any variations which may be found to exist. In studying this interesting and by no means unimportant subject, nothing of consequence could be gained by dwelling on statistics of the nation at large, even if such were accessible. It is proper to limit the territory from which the mortality statistics are drawn, so that the meteorological conditions of different parts of the year may be kept as free as possible from conditions which may be called climatic, using this term to express the general yearly character of the weather at different places. For purposes of comparison the meteorology and the mortality of particular places might be studied to some advantage; but in undertaking to make comparisons of this kind one would be very liable to be misled, for the local physical conditions, the length of time a place has been settled, and the race, density, habits and customs of the population, have much to do with the death rate. A suitable standard for comparison is to be found in the average mortality of the place for a few years past; and this is the one I will adopt. I say the average for a *few* years past, because the average for a long series of years includes the effects of change in the local conditions, which may be very important in character, not to mention change in

the ways and nature of the population. My meaning will be clear when I say that the relative mortality from different diseases is not at all the same now as it was a number of years ago, in most large cities, although the ordinary meteorological data furnish little or no proof of change. Thus, in London malarial fevers, in the time of Sydenham and long afterward, were the great perennial scourge of the population; while, at present the number of deaths from these diseases is very small, the cause being mainly better drainage and sewerage. A somewhat similar statement might be made in regard to Philadelphia. The relative mortality of the months at present compared with what it was fifty or a hundred years ago must be attributed largely to changed local sanitary conditions. How great the difference is in London I pointed out in my essay referred to above, and in Philadelphia it is also very marked within the last three quarters of a century. In his valuable analysis of the mortality statistics of this city for twenty years, beginning with 1807, the date when systematic registration of deaths and their causes began, which appeared in 1827, in the first number of the *American Journal of Medical Sciences*, Dr. G. Emerson found the order of mortality of the months to be—beginning with the one in which it is greatest: August, July, September, October, June, March, April, November, January, December, May, February. It will be noticed that the order for that period is very different from what it has been of late, by comparing it with the order for the fifteen years ending with 1875, which is as follows: July, August, March, January, April, May, December, February, June, October, September, November.

Of course, it will occur to the reader that, as hinted in the article referred to above, it is impossible to expect the mortality at different periods of the year to reflect precisely the state of the weather, for the reason that man's intellect enables him to make more or less successful efforts to place himself on agreeable relations with external conditions by regulating his clothing, shelter, food and habits in general. It is only in the vegetable kingdom that cause and effect are here at once apparent. In the forming buds, blossoms and fruit, and the disappearance of these, we can in our trees note the coming and going of the seasons, and from the flora of a place tell a good deal about its climate. I am impressed with the failure of ordinary human care to entirely circumvent the effects of change of atmospheric conditions, by some leafless tea-plants which are before me as I write. Although they have been well attended to since the cold weather set in, it is doubtful whether there is now sufficient vitality in them to respond to the reviving breath of spring. Whatever seasonal difference exists in the human death rate is expressive of the degree of failure of the race to duly antagonize atmospheric vicissitudes, either direct or indirect. It is well to say that under the head of atmospheric vicissitudes may rightly be included all changes in the atmosphere, whether of composition or other qualities, due to gaseous and other emanations from the earth. Until we can and do systematically recognize these modified states of the air, arising from local conditions, medical meteorology will lack much of being exact; and while this is so medical science will not advance as it should. Here I would observe that the practical medicine of our day takes far too little notice of the media in which people exist; it is confined far too exclusively to efforts to change the state of the system through the forces that are at play within, and in opposition to those that are antagonizing these from without. A knowledge of the philosophy so admirably expounded by Herbert Spencer would be of use to physicians. I cannot help quoting several pregnant passages from him. Says he (*Principles of Biology*, 1864), "Change of every order is toward equilibrium, but we have also the truth, which holds throughout the organic world, that life itself is the maintenance of a moving equilibrium between inner and outer actions—the continuous adjustment of internal relations to external relations; or the maintenance of a correspondence between the forces to which an organism is subject and the forces which it resists." A definition of life quite similar to that of Bichat, which is that "life is the sum of the functions which resist death." Again (ibid.), "Those changes which enable a species to live under altered conditions are always toward equilibrium with the altered conditions. . . . A factor which does not act continuously or frequently on the individuals acts continuously on the species as a whole, either destroying such of the members as are least capable of resisting it, or fostering such of the members as are most capable of taking advantage of it."

Taking the years 1875, 1876 and 1877 as the period for my study of the relations of the meteorology to the mortality in Philadelphia, I will begin by giving the former, and in the form of monthly averages for the three years on the average, and for the last of these alone—gaining in this way data for important comparisons. Monthly averages being more definite than quar-

terly ones, are better; and it would be still better perhaps, to make them shorter; but the influence of meteorological changes not being immediately manifest in the death rate, it is well to deal with considerable periods, periods long enough to cover at least the usual length of time from the inception to the crisis of acute diseases. Many of the deaths of some weeks might properly be referred to influences at play a week, or month, or longer before. It would be far more instructive to study the relation between the prevailing meteorology and the sickness rate than the death rate, but unfortunately the former can be but very imperfectly known. If all physicians could and would scientifically study the meteorological influences under which the disorders of their patients originated, preventive medicine would doubtless reap great advantage from the practice.

I do not pretend to be able to give the meteorology of Philadelphia in anything like a complete form. No systematic observations of the varying amounts of electricity and other more or less active agents in the air are made. Most of the figures I will give are calculated from data furnished by the U. S. Signal Service officers, and may be taken as correct so far as they go. It is well to remember, however, that observations made at an altitude of thirty or forty feet do not indicate the character of the air near the ground, which is most subject to variations; let no man delude himself by supposing that the results of such observations constitute anything more than approximate medical meteorology. Each ward, each square, each house in the city has a meteorology of its own, which every physician seriously interested in etiology, yes, and therapeutics, should study.

The following table gives the maximum, the minimum and mean of the thermometer (Fahr.), as determined by observations made at 7 A.M., 2 P.M. and 9 P.M. daily, for each month of the year for the three years, on the average, and for the last of these alone:—

	MAX.	MIN.	MEAN.	MAX.	MIN.	MEAN
January	53.5	6.0	30.7	49	8	28.4
February	59.6	7.0	32.3	60	16	36.9
March	64.6	12.0	36.8	67	15	38.2
April	75.0	26.6	48.2	80	30	50.0
May	88.0	39.6	61.0	90	41	60.7
June	93.6	52.3	72.1	93	54	71.7
July	95.6	60.6	77.0	95	61	77.8
August	89.6	59 0	74.0	93	63	75 5
September	87.3	46.3	64.9	84	48	66.8
October	76.0	35.6	53.9	79	41	57.4
November	69.0	17.6	43.9	68	22	46.6
December	59 0	10.0	33.2	63	22	40.6

The following table gives the maximum, the minimum and the mean of the barometer, as determined by observations made at 7 A.M., 2 P.M. and 9 P.M. daily, for each month of the year for the three years, on the average, and for the last of these alone:—

	MAX.	MIN.	MEAN.	MAX.	MIN.	MEAN.
January	30 682	29.481	30.185	30.647	29.243	30.163
February	30 733	29.267	30.117	30.566	29 402	30.084
March	30.537	29.221	30 048	30.582	29.120	30.001
April	30.458	29.504	30.002	30.403	29.419	29 983
May	30.388	29 5 6	30.014	30.389	29.460	29.997
June	30.250	29.675	30.009	30 293	29.611	29.997
July	30 265	29.700	29 980	30.264	29.703	29 953
August	30.265	29.737	30 013	30.223	29.689	29.954
September	30.346	29.619	30.032	30.328	29.718	30.077
October	30.512	29.441	30.065	30.532	29.391	30.062
November	30.587	29.463	30.067	30.618	29 314	30.127
December	30.688	29.266	30 082	30.630	29.342	30.179

The following table gives the mean relative humidity and the rainfall (and snow melted), in inches, for each month of the year for the three years, on the average, and for the last of these alone:—

	HUM.	RAIN.	HUM.	RAIN.
January	72.3	2.32	76	2.62
February	66.3	3.02	64	.84
March	68.3	4.40	68	3.40
April	57.3	2.55	60	2.66
May	56.6	2 30	54	1.10
June	65.6	3.88	67	5.22
July	66.3	4.95	70	5.53
August	71.3	2.68	69	.66
September	68.6	4.71	70	2.74
October	68.0	3.00	74	6.52
November	70.3	3.95	72	5.14
December	74.0	1.86	73	.83

The following table gives the number of times the wind was found blowing from each of the directions named, as observed at 7 A.M., 2 P.M. and 9 P.M. daily, for each month of the year for the three years, on the average, and for the last of these alone:—

	N.	N. E.	N.W.	W.	S. W.	S. E.	E.	S.
January	12.0	9.6	21.6	19.3	15.0	2.0	12.6	.6
February	13.0	8.6	25.0	13.3	8.0	2.0	11.3	3.6
March	18.0	8.3	21.0	7.6	12.3	3.6	17.3	4.6
April	18.6	8.6	16.0	10.3	10.3	4.0	17.0	5.0
May	15.0	6.3	9.6	17.0	19 3	3.6	14.3	7.6
June	6.0	5.6	8.3	20.0	27.3	2 3	8.6	11.6
July	10.3	8.6	14.0	19.0	16.0	4.0	12.3	8.6
August	7.6	7.3	11.6	13.6	18.3	4.0	18.3	12.0
September	11.0	13.3	12.6	13.3	14 3	4.0	15.6	5.6
October	11.3	9.0	17.0	17.3	20.3	3.0	9.6	5.3
November	17.0	11.6	16.0	12.3	12.6	2.3	13.0	5 0
December	11.3	12.0	22.6	17.0	11.0	0.3	16.3	2.3

	N.	N.E.	N W	W.	S.W.	S.E.	E.	S.
January	19	9	16	25	5	2	16	1
February	24	8	17	20	3	1	11	0
March	21	6	17	6	19	2	20	2
April	13	13	9	9	7	7	29	3
May	23	8	9	20	13	2	14	4
June	6	7	7	24	25	3	12	6
July	7	11	12	20	19	5	16	3
August	15	5	15	18	18	1	14	7
September	11	18	12	8	19	5	8	9
October	7	17	15	13	28	5	2	6
November	14	10	16	13	18	3	9	7
December	4	21	21	17	20	0	5	5

The following table gives the number of miles of wind for each month of the year, for the three years, on the average, and for the last of these alone:—

January	7631	6907
February	8270	7907
March	9889	11325
April	8348	8627
May	7731	7449
June	6350	6661
July	6322	6241
August	6004	6050
September	6196	6191
October	7265	7371
November	8112	8389
December	8278	7966

The following table gives the state of the weather, as noticed at 7 A.M., 2 P.M. and 9 P.M. daily, for each month of the year for the three years, on the average, and for the last of these alone:—

	FAIR.	CLOUDY.	RAIN.	CLEAR.	SNOW.	FAIR.	CLOUDY.	RAIN.	CLEAR.	SNOW.
January	25.0	31.6	8.6	24.0	3.6	27	24	12	25	5
February	20 6	19.0	10.0	12 0	3.3	25	18	5	35	1
March	19.6	28.3	11.6	27 0	6.3	17	27	17	25	7
April	26.0	24.6	8.6	30.3	0.3	22	26	13	32	0
May	29.3	19.6	8.6	35.3	0.0	31	20	6	36	0
June	40.0	21.0	5.0	24.0	0.0	40	28	5	17	0
July	46.0	20.6	7.6	18.6	0.0	38	22	11	22	0
August	31.0	31.6	6.6	23.6	0.0	30	35	4	24	0
September	24.6	24.0	13.6	27.6	0.0	24	31	11	24	0
October	24.5	25.0	8.3	35.0	0.0	27	21	11	34	0
November	19 0	27.6	13.6	29 0	0.6	15	26	12	36	1
December	19.0	30.0	12.0	27.3	4.6	21	30	5	39	0

The following table gives the time the sun is above the horizon, per month, calculated for the year 1879:—

	HOURS	MINS.
January	300	13
February	298	4
March	370	35
April	398	21
May	445	45
June	448	3
July	454	59
August	425	2
September	373	41
October	345	13
November	299	7
December	290	31

These tables give all the data necessary to convey a complete understanding of the ordinary meteorology of Philadelphia. It would be interesting to point out in detail the influences which determine the climate of this city, but I cannot enter fully into the complicate subject now; a few brief statements bearing on it must suffice here.

The city of Philadelphia, which includes the whole county of the same name, an area of 82,700 acres, is situated in north latitude 39° 57′, and west longitude 75° 10′, and had in the Spring of 1876, the time when the last census was taken, a population of 817,448. It is located on and west of the flat tongue of land bounded by the Delaware and Schuylkill rivers, which unite about three miles south of the limit of the built-up portion, to form the Delaware bay, which is navigable by the largest steamers. These rivers are large; the former, near its mouth, being almost a mile, and the latter about half a mile in breadth. In both, near their union, the tide is very observable; in the Delaware the rise averages five feet, and is observable over thirty miles above the city. The water is fresh for over fifty miles down the bay, which is one hundred miles in length. The site of the city is from twenty to fifty feet above the level of the sea, from which it is distant in a bee-line eastward about fifty miles, and consists geologically of tertiary deposits resting on primitive rocks. It was covered, for the most part, with a heavy forest when the city was founded (1682); but doubtless it was overswept by the sea at a no very remote date in geological time. Philadelphia, however, is perhaps more dependent on its relative than its actual geographical position and its site, for its climate. The immense territory to the west, southwest and northwest, and the ocean with its great current, the Gulf Stream, to the east and southeast, are very potential in their influence. This great northeastern current, the water of which is from fifteen to twenty degrees warmer than that which surrounds it in the 40th parallel of latitude, has much to do in bringing about the dry, cold northwesterly winds which are so marked a feature of the climate of Philadelphia during the colder half of the year; and this feature would be more marked if the course of the stream were the same in winter as in summer. In winter it does not come so close to our coast as it does in summer, and in this way lets a considerable current from the north sweep into the west of it, which not only diminishes the force and frequency of the northwesterly and westerly winds, but not unfrequently succeeds in making itself felt in the form of a northeast wind, which is anything but agreeable in nature. In the frequency of southwesterly winds in the warmer half of the year, in Philadelphia, the Gulf Stream becomes again apparent. In the Atlantic States it is rare for a storm to take any other course than northeasterly, a fact pointed out by Franklin; when it does occur, it is generally in the autumn, when the air of the interior of the continent tends to be comparatively very rarefied. Southwesterly storms are mostly preceded by northeasterly winds and rain, and followed by westerly winds and clearing weather.

The direction of the wind has much to do in determining the humidity, and to some extent the rainfall. Northerly winds are dry as a rule, while southerly winds are the reverse. Of course a precipitation of rain or snow is due to a reduction of the temperature of the air to or below the dew point, and this occurs either from the air

ascending to a higher and consequently a colder plane, or the immediate contact of two or more bodies of air of temperatures sufficiently different to result when united in a figure below the dew point. The centre of the area of low barometric pressure is where the bulk of precipitation will occur. Did space permit, it would be profitable to dwell at length on the relation of temperature to humidity—a branch of meteorology which has not received the attention which it deserves. In Boyle's *Memoirs for a General History of the Air* (1725) occurs this seemingly paradoxical statement: "I am informed by two gentlemen of the province of New Hampshire, New England, that both the coldest wind of that country in the winter and the hottest in the summer is the northwest." Thanks to the labors of Prof. Tyndall, in regard to the diathermancy of different gases and vapors, begun in 1861, this can now be easily explained. While oxygen and nitrogen and pure air itself are almost entirely diathermous, the absorptive power of moisture is very great. It seems that a molecule of aqueous vapor has 16,000 times the absorptive power of an atom of oxygen or of nitrogen; and carbonic acid, marsh gas, ammonia, etc., are also extremely absorptive. Now, when the sun shines on an atmosphere that is dry, his rays pass through it in all their power, but when the air is damp the rays are much weakened before they reach the earth. On the other hand, when the air is dry, the heat from the earth radiates into space much faster than when it is moist. The importance of these facts from a medical standpoint is very great. All the agents just mentioned as powerful absorbents of heat are found in greatest abundance near the earth; consequently, they absorb a large amount of the heat radiated from the earth —which, it must be borne in mind, is the chief source of the heat diffused in the atmosphere. Usually over ten per cent. of the heat from this source is absorbed within ten feet of the ground, a fact which makes it seem rather absurd to place meteorological instruments at an altitude of forty or fifty feet, so far as sanitary science is concerned. The acute intellect of Bacon came near to seeing through this matter of the relation of temperature to humidity, as indicated by the following interesting passage from his *Natural History*: "Starlight nights, yea, and bright moonshine nights, are colder than cloudy nights. The cause is the dryness and fineness of the air, which thereby becometh more piercing and sharp; and, therefore, great continents are colder than islands." I believe that a careful study of this subject would enable that excellent student of meteorology, Mr. Lorin Blodgett, to understand why the heat of summer in the greater portion of the United States rises higher than it does in most tropical countries, as well as why the cold of winter becomes at times so great—facts which he, in a paper read before the American Public Health Association, in 1873, pronounced to be inexplicable.

I will not make lengthy comments on each of the meteorological tables; they will be clear enough to every one of ordinary intelligence. I will confine myself to a few running remarks.

The order of succession of the months, according to the average temperature, is as follows, beginning with the one in which it is the lowest: January, February, December, March, November, April, October, May, September, June, August, July. The order of the months according to range of temperature, is as follows, beginning with the one in which it is greatest: February, March, November, December, April, May (same as last), January, June, October, September, July, August. The highest temperature recorded was in July, 1876, when it went up to 100°; and the lowest was in January, 1875, when it went down to —5°. This gives a difference or range of 105°. The order of the months, according to temperature, is the same for 1877 as for the three years, on the average, save that March comes in advance of December. The order, according to range, differs considerably; it is as follows: March, April, May, November, February, January, December (same as last), June, October, September, July, August.

I may remark of the table of the barometric pressure, that the instrument used in making the observations stands 46.9 feet above the level of the sea, for which, as well as the temperature and instrumental errors, the readings have been corrected. As might be expected, the pressure is less in summer than in winter. At all seasons of the year it, as a rule, falls when the wind becomes southerly, and rises when it becomes northerly. The following is the order of the months, according to the degree of pressure, beginning with the one in which it is greatest: January, February, December, November, October, March, September, May, August, June, April, July. The following is the order, according to the range, beginning with the one in which it is greatest: February, December, March, January, November, October, April, May, September, June, July, August. The order for 1877, according to temperature, is as follows: December, January, November, February, September, October, March, May, June (same as

last), April, August July. The order, according to range, is as follows: March, January, November, December, February, October, April, May, June, September, July, August.

The relative humidity or degree of saturation of the air is of greater sanitary significance than the rainfall, but both are important. In a city the rain washes the air, as well as the streets and sewers, of many impurities, the presence of which would be prejudicial to health. It should be remembered that the relative humidity is not always, or even generally, high when rain falls, which is easily understood when it is borne in mind that the state of the higher atmosphere may be and is very different, generally, from that of the lower. December is the month in which the relative humidity is highest, but it is the one in which the rainfall is least. The following is the order of the months, according to their mean relative humidity, beginning with the one in which it is highest: December, January, August, November, September, March, October, February, July (same as last), June, April May. The following is the order for 1877: January, October, December, November, September, August, March, June, February, April, May.

The following is the order of the months according to the rainfall, beginning with the one in which it is greatest: July, September, March, November, June, February, October, August, April, January, May, December. The following is the order for 1877: October, July, June, November, March, September, April, January, May, February, December, August.

The table of the winds does not indicate the occurrence of "calms," which were observed on two or three occasions in the autumn of each year; these I have placed under the heading to which I suspected them to be most closely related. The prevailing direction of the wind each month of the year is as follows: In January, northwesterly; in February, northwesterly; in March, northwesterly; in April, northerly; in May, southerly; in June, southwesterly; in July, westerly; in August, southwesterly (easterly as often); in September, easterly; in October, southwesterly; in November, northerly; in December, northwesterly. For 1877, the prevailing wind in January was westerly; in February, northerly; in March, northerly; in April, easterly; in May, northerly; in June, southwesterly; in July, westerly; in August, westerly (southwesterly as often); in September, southwesterly; in October, southwesterly; in November, southwesterly; in December, northeasterly (northwesterly as often). The north wind is commonest in April and rarest in June; the northeast is commonest in September and rarest in June; the northwest is commonest in February and rarest in June; the west is commonest in June and rarest in March; the southwest is commonest in June and rarest in February; the southeast is commonest in April (same in September) and rarest in December; the east is commonest in August and rarest in October; the south is commonest in August and rarest in January. The relative frequency of the winds is indicated by the following figures: North wind, 151.1; northeast, 108.8; northwest, 195.3; west, 180.0; southwest, 184.7; southeast, 35.1; east, 166.2; south, 71.8. The south, the east, and the southeast are, as a rule, very moist winds; next comes the northeast, next the southwest, next the west, next the north, and last of all the northwest. The east wind blows on the great majority of the occasions of snow or rain during the first four months, and on a majority of the whole year. A sudden veering of the wind from a southerly to a northerly point of the horizon is generally attended with more or less of a precipitation, and the same is true when it veers from a northerly to an easterly direction. The wind blows only occasionally as long as twenty-four hours in one direction; four days was the longest period in the year 1877.

The order of the months, according to the number of miles of wind, is as follows, beginning with the one in which it is greatest: March, April, December, February, November, May, January, October, June, July, September, August. The order for 1877 is as follows: March, November, April, December, February, May, October, January, June, July, September, August. It must not be forgotten that February has three days less than some of the other months. The northwest wind is, as a rule, the most violent. The great storm of October 23d, 1878, which attained the, perhaps, unprecedented velocity of seventy-five miles an hour, was from the southeast by east.

I may digress here to observe that the direction and force of the winds are very important from a medical standpoint, and are far less studied than they should be. How many physicians in Philadelphia are prepared to say what the physiological effects of a change from a northerly to a southerly wind in January are, or the effect of the same change on the prevalence of smallpox or any other disease? The early cultivators of medical science were fully alive to the importance of winds. In the "Aphorisms" of Hippocrates the subject is dwelt on at length

and instructively. The character of each of the winds, however, both in Greece and Rome, is very different from what it is in nearly all sections of the United States. In his work, "De Medicina," Celsus gives these broad generalizations, which still hold good, at least, in the south of Europe: "Generally, in every place, a wind that comes from the inland parts is healthful; one from the sea is sickly." A southerly wind coming off the sea, being warm and moist, is oppressive. It is worth while to quote here the following passage bearing on this subject, from the work of Boyle, referred to above: "It is evident that, according to the vehemence or slackness of the wind, and the places from which and to what quarter it happens to blow, various effects ensue, especially in animate bodies; and this is not only as it is attended by cold and heat, moisture and dryness, but considered as an aerial stream, whereby it fans the places through which it passes, expels the stagnant air and introduces fresh; hence it doubtless may contribute to many changes in the health of animals, but especially in the tender sort of them." One broad generalization which it is well to bear in mind is this: southerly air is generally moist, while northerly air is dry. This, with their differences in temperature, furnishes a clue to the explanation of the following rather emphatic remarks taken from Bacon's interesting *Natural History of Winds:* "While the south wind blows men's breath grows ranker, all creatures' appetites decay, pestilent diseases reign, men wax more slow and dull; but when the wind is northwardly men are more lively, healthful and greedy after food."

Of the "state of the weather" table it is well to explain that under the head of "fair" is included the half dozen or more instances in which a hazy state of the atmosphere was observed. The prevailing state of the weather is, in January fair, in February clear, in March cloudy, in May clear, in June fair, in July fair, in August cloudy, in September cloudy, in October clear, in November clear, in December clear. In 1877 the prevailing state in February, April, May, October, November and December was clear; in January, June and July it was fair; and in March, August and September it was cloudy. Snow falls most frequently in March, next in December, next in January, next in February, next in November, and least often in April. It is very rare that there is any in any of the other months. It must not be supposed that the state of the heavens is of little or no consequence so far as health is concerned. It is no exaggeration to say that the human system sympathizes with the clouds; that the pulsations of life are subject to the flitting vapors of the sky. A little floating belt of moisture may shear the withering rays of the sun of their fatal influence, or at another period of the year cut off those that are necessary to keep the vital spark alive.

It is certain that the difference in the number of hours of sunlight of the different months of the year has a great influence on the state of health and strength. The relation between life and light is intimate, as can be easily demonstrated. Thus if two similar solutions are placed, one in the light and the other not, in a short time numbers of animated creatures will soon be developed in the former, while none will appear in the latter for an indefinite length of time. It is true, however, that sunshine in large amount is entirely destructive to bacteria and other low organisms—a fact that should not be forgotten in studying the etiology of epidemic and endemic diseases. From the table of the number of hours the sun is above the horizon, it will be observed that in July there is not a very great deal less than twice as much sunlight as in December, to say nothing of its greater intensity. People who live closely in dark rooms are comparatively weak, and succumb easily to disease of any kind. Doubtless the condition of people in December, as compared with what it is in July, is somewhat similar. An excess of light, however, is perhaps injurious to many.

The excellent and still improving system of weather prediction of the United States Government, which has been in operation since 1870, should be appreciated by physicians. Guided by the daily reports, few, if any, atmospheric changes should overtake any one unprepared. I would here say that the possibility of predicting the approach of storms is by no means as recent a discovery as many imagine. In an article in the *American Journal of Science and Arts* (1871) Prof. Abbe gives the credit of it to Franklin, whom all men justly delight to honor, but any one who turns to Bacon's work, referred to above, will find that the fact was not unknown to him. Says he, "Seeing progression is always from some certain place or bound, inquire diligently, or as well as thou canst, concerning the place of the first beginning, and, as it were, the spring of any wind, * * * as, for example, if the vehement northern wind which blew at York such a day, do blow at London two days after."

(To be Continued.)

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TREATMENT AFTER AMPUTATION, ESPECIALLY WHERE SUPPURATION OF THE FLAPS HAS OCCURRED.

BY H. L. GETZ, M.D.,
Of Marshalltown, Iowa.

In a recent case of amputation of the leg in its middle third, for a railroad injury, suppuration of the flaps occurred. I did not do the amputation, but was called to take charge of the patient about a week after the operation, when the surgeon in attendance gave it as his opinion that the patient could not recover. The entire limb, up to the hips, was enormously swollen and erysipelatous; wound gaping, and no signs of healing, but looking very unhealthy. Seeing that there was no chance for the parts to heal other than by granulation, I removed plasters and what sutures remained, to give free exit to the pus, using carbolic acid freely, as a dressing, and tonics of quinine and iron internally, in full doses, and soon had the satisfaction of finding the parts assume a more healthy appearance and the patient's bad general symptoms replaced by symptoms more favorable. But now there was something else to contend with; the anterior flap had sloughed so much that it could not be drawn over the end of the tibia, the latter projecting half an inch; it seemed now as though the bone would not be covered unless one inch or more of the bone was removed; this I would not do, on account of the patient's condition, fearing that he might relapse into the same state he was when I first saw him.

Not being able to bring the edges of the flaps together with plaster, in the usual way, and not even partially without giving the patient much pain, it now occurred to me that it would be a good plan to apply strips of adhesive plaster to each flap, extending them up the limb eight or ten inches. To these I applied cord and weights, giving the patient no pain and covering the bone more nearly than I could possibly do applying them in the usual manner. I did not even expect that I would be able to cover the bone entirely without removing at least a small segment. To my great satisfaction, however, the bone closed over entirely, and a good stump was the result; I see no other plan that could have been adopted giving such favorable results. I believe that the treatment of flaps in amputations of the extremities (where union does not take place by what is known as first intention), should invariably consist of adhesive strips and weights, instead of applying the strips as has been done formerly. The advantages are as follows:—

1. Everything is gained by strips and weights that can be accomplished in the old way.
2. Free vent is given to the pus.
3. The vitality of the flap is not interfered with by compression.
4. It is much less painful to the patient.
5. The ends of bones can be made to heal over, which could be done in no other way.

APPEARANCE OF THE TONGUE IN DISEASE.

BY J. A. HENNING, M.D.,
Of Red Key, Ind.

When a physician commences to examine a patient, generally his first request is "Let me see your tongue." The patient protrudes it a few moments, and other symptoms are examined as promptly. The doctor rarely stops to study what condition of the system is expressed by the appearance of the tongue, but only to see whether the secretions are torpid or lively. I have noticed physicians, and even professors of colleges, to thus hastily examine the tongue, and say nothing about its peculiarity or indications. When I first commenced to practice I would, as is the custom, look at the tongue, but I did not know what I could learn from it. Yet I knew very well that the peculiar appearance in different forms, and even in the same disease, with its changes, meant much more than I knew about it. Then I would look at my text books, but, as a general thing, they gave me very little light on it.

The appearance of the tongue will tell us, 1st. The condition of the digestive organs. 2d. Function of nutrition and assimilation. 3d. The nervous system. 4th. The condition of the blood. All of which we want to know from every patient before we can make, in many cases, a rational or scientific prescription.

Some of the peculiar appearances of the tongue in numerous diseases are the broad, white-coated, pallid tongue; or the deep red, sleek tongue. Then we have the pinched, shrunken, elongated, full, yellow-furred, violet, dark brown tongue, with many other varieties.

We shall not attempt to describe all the above appearances, as found in various diseases, but only call attention to the first two forms.

1. The broad, pallid, white-furred tongue, whether found in acute or chronic disease, and even in the same disease at different stages, it matters not, always indicates the want of the alkaline elements of the body. The patient that has such a tongue never wants an acid drink,

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because his system is already acid whether the acid is in the stomach or blood it matters not. In such cases, with our usual prescription we must give alkalies, such as sulphate or bicarbonate of soda, in order to neutralize the acid. Then, and not till then, will our remedies act kindly and much more promptly, and the patient improve more rapidly. Now, if acids are prescribed when the tongue is broad and pallid, the system being full of acids already, it will be seen at once that no improvement could or should be expected. I remember, before I was aware of this rule, I could not see why my remedies did not improve the patient; but now I give the proper alkali, removing the acid; then the remedies act more promptly, the tongue changes to a better appearance, and the patient improves correspondingly. This acid condition of the system is probably more often found in acute than in chronic diseases; at least, that is my observation. It needs but a trial to test this principle; I have never known it to fail. I do not pretend to explain why the tongue looks thus when there is a superabundance of acid in the system.

2. The deep red, sleek tongue, with a slight coat at the base, indicates just the opposite condition; here the system is in an alkaline state, no matter in what form of disease. Then some kind of acids must be given, to neutralize the superabundance of the alkali, before other remedial agents will, or even can, have a good effect. All persons that have this peculiar tongue desire acid drinks. This tongue is often (though not always) seen in erysipelas, typhoid fever, and many other diseases, where the tr. chloride of iron or muriatic acid will be the leading remedies. But if the system was in an acid condition, known by the broad, pallid tongue, those remedies would do more harm than good. Now I do not wish to inculcate the idea that alkalies or acids will cure any disease, but the above appearances of the tongue are indicative of specific physical conditions, and those remedies are adjuvants, paving the way and assisting specific remedies.

The other peculiar appearances of the tongue above-named each have a significance, and one very important to learn; not only being a material element in making a diagnosis and prognosis, but are also indicative of treatment. Many of our best remedies fail in chronic diseases, just for the want of this simple knowledge, and this is one reason why remedies will remove the disease in one patient and fail in another, though they may have the same disease and the same remedies. Take rheumatism: sometimes an acid treatment and sometimes an alkaline treatment will cure. Failure often lies in the physician, not in the remedies. The grand secret is to know which of the two is demanded for the particular form of the disease.

Editorial Department.

Periscope.

The Management of Acute Catarrh of the Middle Ear.

In the Louisville *Medical News*, Dr. W. Cheatham says, on this subject: Never put a poultice over an eye or an ear. It is sometimes excusable in diseases of the former organ after all hopes of vision are gone. They give relief at first, but usually leave the organs in a much worse condition than could have been expected from the primary trouble. They lead to the growth of polypi, and get the external auditory canal into such a soggy condition as to render the case almost, if not entirely, incurable. Many of you, no doubt, have seen earaches relieved by their application, but how many of you have also seen perforated drumheads that can never be healed, recurring polypi, occlusion of external auditory canal, deformity of auricle resulting from abscesses, and many other evils which could have been avoided by the proper treatment.

I place at the head of all treatment for acute inflammation of the middle ear local blood letting. One or several leeches should be applied to the tragus, leaving them there until they are filled; then the flow of blood should be encouraged for an hour or more, the number of leeches and the length of time of the after-bleeding to be controlled by the condition and age of the patient and the severity of the case. When it is impossible to get the leeches, wet cupping over the mastoid region is desirable. Next in efficacy to local depletion comes water as warm as can be borne, by means of a douche (not a syringe), or any other arrangement by which a steady flow of it into the aching organ may be acquired. A quart or more to be used in this manner, to be repeated every half hour or hour until relief is given.

If these remedies fail, do not try anodynes yet. They only mask the symptoms. If the drumhead is bulging, perform paracentesis. The operation is a very easy one. Any one capable of seeing a drumhead should be able to do it. Under good illumination pass the knife or needle used along the floor of the canal and just posterior

to the handle of the malleus; in the infero-posterior quadrant of the membrane make your puncture. Sometimes pus will escape, other times blood or serum. After the puncture is made cause the patient to perform valsalva, or inflate with Politzer's bag and blow out any fluid which may be retained there. Where there is any doubt in your mind as to the propriety of the operation because the case is not clear to you, give the patient the benefit of the doubt. With ordinary care you cannot possibly do harm, whereas by neglect irreparable injury may be done. Holes in drumheads made by knife or needle soon heal, very often before you wish; they are usually difficult to keep open.

After free vent is given the discharge anodynes may be used. Give them for their effect and not by the dose. Quiet the pain; give rest. This subject of rest was discussed very thoroughly in the last meeting of the New York County Medical Society, Drs. Agnew, Knapp, Roosa and others agreeing on the importance of it, but not in the position of the patient during the rest. Give patient his or her choice; leave it to them entirely. Should the paracentesis close, repeat it as often as necessary. I have seen it done six or eight times in one ear with excellent result.

In all ear troubles, and especially in the one of which I am speaking, strict attention should be paid to the general condition of the patient. The skin should be kept active as far as possible, to guard against cold. An hour's cold will undo many months' treatment.

On Periodic Dipsomania.

According to Dr. J. K. Barton, in the *Practitioner*, this variety includes those patients who get periodic attacks of drinking, lasting for a long or short period. In some patients the attack comes on suddenly. That is to say, they take to drinking large quantities of alcoholic fluids without any premonitory symptom. But more often than not there is noticed an alteration in character and temper that forewarns those who have anything to do with the patient. In the case of a married man, the wife can almost always tell when an attack is coming on. The length of these attacks vary very much, more especially according to the duration of the disease in the patient. In the early history of the disease the drinking bouts often last from one to three weeks, and during that time the patient is constantly drinking. As he cannot get the quantities of liquor that he requires outside anywhere, he takes to drinking in his own rooms or house. Nothing will stop him. If his friends or servants try to get him to leave off, he storms and rages and terrifies them into submission to his ways and wants. His excuse for drinking is always that he is excessively weak and nervous and requires support, and that it is absolutely necessary for his life that he should have stimulants. His appetite soon disappears, and he only makes vain efforts to partake of any food that is brought to him. Great sleeplessness and restlessness comes on, and, in fact, the patient is often on the verge of delirium tremens when the disease abates, either gradually or suddenly, and he gets fairly well. When it ends suddenly, it is generally from an attack of acute or subacute gastritis, for which he requires and seeks for medical aid. The craving for drink having also disappeared, he willingly submits to medical direction, and under judicious treatment recovers. When the attacks go off gradually there are less severe gastric symptoms, and the craving having become less, there is a diminution in the gastric and nervous troubles.

After patients have lived for several years with these periodical attacks, the duration of attack diminishes in length, and they increase in frequency; the cause of this being chiefly due to the effects on the gastric system. The stomach much sooner resents the large quantities of alcohol put into it, and consequently the drinking fits are cut short by attacks of gastritis, and often also enteritis. But from the attack being shorter, the interval of diminution in drinking also becomes shorter, so that the patient gradually goes from bad to worse.

Tests and Preservation of Surgical Instruments.

The following directions are from a work in preparation by Dr. S. Smith:—

The *tests* of the quality of instruments are as follows: Draw a cutting instrument from heel to point slowly across the *border* of the nail, and it will catch or stop at every "nick;" draw it across the *flat* of the nail, and if at any point the edge is seen to be wiry or smooth, it is soft, and must be reapplied to the hone; but if it becomes serrated, like a fine saw, the edge is brittle, and cannot be remedied by the hone. For pointed instruments, stretch upon a test drum (a contrivance for the purpose for sale by instrument makers) a very thin piece of kid, or gold beater's skin, and push the point through. If it enter smoothly and easily the point is good; but if a slight crackling noise is heard it is defective. If a lancet is tested, see-saw the edge in the opening, and if it glides over without cutting, or cuts roughly, the edge is imperfect.

The *preservation* of instruments in good condition requires careful attention to the following details: Select a place always free from moisture and dirt, for their safe keeping. Polished instruments should be suspended or placed in velvet-lined cases. After being used, every instrument should be thoroughly cleaned with warm water, and perfectly dried with chamois, or the fire, before it is returned to the case. Silver instruments tarnish when they are exposed to the air, or are brought in contact with hard or soft rubber, caustics or acids. To preserve the edge and polish of instruments, the surgeon requires two or three small hones, some fine emery paper, two or three screw drivers, small files, rouge crocus, or other polishing powder, chamois, and gold beater's or kid skin. Cutting instruments should have their blades kept in perfect order by the judicious use of the hone. Occasionally the blade must be ground by a competent workman. Blunt instruments, which are designed to enter natural or other passages, should be frequently polished with fine emery paper, and then with rouge and chamois skin, in order to remove every particle of rust, and to maintain smooth unblemished surfaces. Saws

are sharpened with three-cornered files, applied in the direction of the original cut of the teeth.

Surgical Operations on the Kidneys.

At the conclusion of a recital of a number of operations on the kidneys, Dr. L. S. Pilcher, in the *Proceedings* of the Medical Society of Kings County, New York, formulates the following statements:—

I submit the following propositions as abundantly proven:—

1. Incisions into the substance of a kidney are not in themselves especially dangerous.
2. The kidneys may recover from very considerable lesions, if complications can be averted.
3. Anatomically, the exposure or the removal of a kidney is not especially difficult or dangerous.
4. A single healthy kidney is capable of eliminating sufficient urine for the maintenance of health.

These four propositions being accepted, two conclusions logically follow. These I submit with a confident belief that they will in time become generally accepted as rules of surgical practice:—

I. Incisions into the substance of the kidneys for the exit of retained fluids, or solid concretions, or foreign bodies which have entered from without, or for purposes of exploration, are justifiable.

II. When a reasonable certainty exists that one kidney is healthy and the other is the seat of advanced and irremediable disease, its extirpation is justifiable.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Dr. L. S. Oppenheimer, Demonstrator of Microscopy, Histology and Vivisection at the University of Louisville, sends a reprint containing contributions from the microscopical laboratory. There are several figures illustrating sections of diseased tissue.

——We have received several numbers of the quarterly published at Berne, Switzerland, devoted to the mechanics of medicine and surgery. It is in a new field and one that promises well. The journal is handsomely printed, with numerous illustrations.

——In some observations on amphoric respiration, reprinted from the *Southern Clinic*, Dr. M. L. James expresses his conviction that an adhesion of the pleural surface of a cavity to the chest wall is the usual condition by which amphoric respiration is produced. He has been surprised to see no mention made by the authorities of such a condition as the occasion of the production of this abnormal sound. The authorities recognize the existence of a large cavity with firm walls as the condition of amphoric respiration, but do not mention pleural adhesion as the particular circumstance by which those walls are made thus firm. Dr. James believes that this, though not the exclusive, is the usual mode.

——In an address delivered at the commencement of the seventh annual course of lectures of the Woman's Medical College, Chicago, Dr. C. W. Earle gives a history of the Institution, and states the demand for a woman's medical college in the West. This he explained to be that "the eagerness with which the initiative was taken by irregular schools and unscientific and irresponsible sects of doctors in the whole matter of woman's medical education, while it has done more than all other causes combined to bring discredit on the movement and to cause an intelligent public to distrust female physicians, at the same time evidenced the necessity of a college of this kind, and in this part of the country."

BOOK NOTICES.

Text-book of Physiology. By J. Fulton, M.D., M.R.C.S., Eng.; L.R.C.P., London; Professor of Physiology and Sanitary Science, Trinity Medical School, Toronto; Surgeon to the Toronto General Hospital, etc. Second edition, revised and enlarged, with numerous illustrations. Philadelphia, Lindsay & Blakiston. Toronto, Willing & Williamson. pp. 416. Price $4.00.

The author has aimed in this volume to present "a well-digested text-book," "chiefly intended for medical students." It contains few or no original studies, and omits references to standard authorities. The latter we consider a serious mistake in any work of the kind, as it is part of a scientific education to become familiar with the names and titles of the workers in science. The illustrations are only moderately well done, and are rather scanty in number. Occasionally no explanation is given of the figures and letters they contain. The text is accurate, so far as we have examined it, and for the purpose of giving students a clear presentation of the known and accepted physiological doctrines of the day, will answer very well. The author has made careful studies of the best and most recent works on the subject, and his style is clear and simple.

THE

Medical and Surgical Reporter,

A WEEKLY JOURNAL,

Issued every Saturday.

D. G. BRINTON, M.D., EDITOR.

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115 South Seventh Street,
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ON THE COLLECTION OF BILLS.

With the increasing keenness in competition the ancient plan of presenting bills once a year has grown into disfavor with nearly all business men. It has been found that the more nearly we can approach a cash system the better it is for all classes; and in default of cash payment, the shorter the time understood necessary for payment, the more profitable for both parties. The popular wisdom has crystallized this truth into the antithetical proverb, that "Short accounts make long friends."

Physicians have been among the last to take note of this change. In some parts of the country it is still the custom to postpone the presentation of bills to some yearly date, Jan. 1st, April 1st, or "after harvest." Much of the financial depression of the profession is owing to this bad business habit; and lately, in this city, it has been receiving the earnest attention of one of our societies, the Northwestern Medical Association. At a late meeting, called especially to consider the financial interests of the members, the following resolution was unanimously adopted:—

"*Resolved*, That a committee be appointed to take into consideration the matter of securing the coöperation of heads of departments, presidents of railroad companies, and heads of large manufacturing establishments, in the collecting of our bills for medical attendance."

It was believed that by such action the bills due physicians by employees could be rendered more secure.

One of the members of the Committee also presented a paper to the Association discussing the general question. Some of his remarks, we believe, will be read with interest by the profession at large:—

"But what can be done? A panacea for the discomforting complications of the financial problem is, perhaps, unattainable, but remedies for their alleviation should be certainly brought within the reach of the general practitioner. The natural aversion of physicians to approaching their patrons for pecuniary aid has generally led to such postponements in presenting bills, that many have come to feel that a doctor strains a point of etiquette if he presents his bill at all, and to come twice for his money is an insult! Often physicians find it so unpleasant to repeat their calls for purposes of collection, that, after a few unsuccessful attempts with delinquents, they give it up, rather than subject themselves to the humilities of the task. This phase of the problem is a demoralizing one to the crafty and dishonest, who purposely hold back payment until the pursuit for money be abandoned, through weariness or disgust. There are errors of the public practice toward our profession that wofully need correction. One indispensable condition for their correction will be found in a cordial, steadfast union of the medical profession, or any considerable given quantity of medical influence directed toward the defence of the interests of each and all together, by an unswerving demonstration that the medical profession respects itself enough to expect and to insist on receiving a fair and reasonable pecuniary remuneration, and that, too, with considerate promptness.

"'Where there's a *will* there's a *way*'—and few indeed there be who are not as able to pay the physician as he is able to lose his earnings. By accustoming all classes of patrons to an early or earlier rendering of bills, while the amount is moderate and the service fresh in memory and appreciation, the satisfaction of both people and physician will be better assured, collections will be facilitated, friendships perpetuated, and a healthier financial morale promoted. By a protective law of human nature *carrion* is offensive to the senses, and the 'dead horse' of an old bill is always obnoxious to both physician and patron!

"If the necessary perseverance of the task of collecting be distasteful or impracticable to the practitioner, then an excellent plan is the one al-

ready adopted by this Association, viz.: the employment of a reliable, earnest, courageous, persevering collector, who can collect for a large number at the same time, and in a few months perform the disagreeable task of prompting the slow, stirring the dilatory, rousing the indifferent, pressing the dishonest and marking the 'loafers and deadheads.' While a trustworthy and accomplished collector is doing this for one, he can do it for all—thus placing every physician employing him upon a fairer and better basis for knowing exactly the financial status of his business. But single-handed effort must fail, while united effort must succeed.

"It has long been the conviction of the speaker that the adoption of a system of premiums and penalties by physicians would practically facilitate a more satisfactory adjustment of their finances. Persons who might pay more promptly often do not, for the reason that there is no practical inducement, while the tendency to indefinite postponement is encouraged, because there is no disadvantage accruing to the postponer. I believe there is propriety and practical wisdom in establishing the habit of rendering accounts for medical service at the close of each consecutive service, and that the 'terms' of the physicians be printed on the blank form of their bills; these terms to embrace the incentives to promptness by a statement of a reasonable per centum rate of interest to be charged after the expiration of a reasonable length of time, if payment be deferred. Many persons habitually in arrears might be thus encouraged to make a new start, and put themselves upon reputable record."

To accomplish the objects here proposed a uniform blank for a bill has been adopted by the Association. On its face it bears the notice—

"Bills rendered monthly, or within thirty days after service."

On one of its extremities is printed—

"Ten per cent. discount will be allowed if payment is made within thirty days."

"Lawful interest will be charged after thirty days."

On the other the name of the collector chosen by the Association is given.

By these plain notices, printed on the bill, and all the members making use of the same form, anything like personality is avoided, and no charge can be brought against any one physician that he is too eager for his pay.

If such a plan is honorably carried out in all instances, by all members, there certainly will be a gratifying change for the better in the annual balances of their books, and physicians would, if such measures were generally adopted, be relieved of many unpleasant experiences.

Notes and Comments.

Therapeutical Notes.

DISEASES OF THE SKIN.

We continue from last week our extracts of interesting formulæ from Mr. Squire's "Pharmacopœia of the British Hospital for Diseases of the Skin," beginning with some

CAUSTICS.

℞.	Acidi arseniosi,	gr. xx
	Cinnabaris factitiæ,	℥j
	Adipis,	℥j. M.

Used in cases of lupus. It is spread thinly on strips of linen, applied for twenty-four hours, and renewed for two or three consecutive days, if necessary, the skin being well washed after each application. Thus applied, it leaves all islets of healthy skin intact, and destroys only the lupus tissue. A chromic acid caustic used in lupus, and also for destroying warts, is—

℞.	Acidi chromici,	
	Aquæ,	āā ℥j.

Dissolve.

This, though a strong, is not a fully saturated solution.

In lupus, and also in indolent tertiary syphilitic ulcers, the following iodine caustic is employed:—

℞.	Iodinii,	℥iij
	Potassii iodidi.,	℥j
	Spir. vini rectif.,	℥j. M.

A new substance for caustics, the ethylate of soda, prepared by treating absolute alcohol with metallic sodium, is used in cases of vascular and pigmentary nævus:—

℞	Sodii ethylatis,	℥ss
	Alcoholis absoluti,	℥vj. M.

The action of this caustic may be checked promptly by dropping upon the part a drop of chloroform.

In venereal warts the savin caustic is employed, which exercises only a very superficial action—

℞.	Pulveris sabinæ.,	℥vij
	Zinci oxidi,	℥j. M.

Inquiry has often been made in these pages for a depilatory. The following is given in the work before us:—

℞.	Calcis sulphuratæ,	℥iss
	Zinci oxidi,	℥vj
	Carmine,	gr. j M.

Mix the powder with water, to make a thin paste; allow this to remain on the skin for three minutes, and then wash it off with water.

SEAT WORMS AND PRURIGO PODICIS.

Prurigo podicis often depends on seat worms

in the rectum. The following enema is recommended "as a specific" in such cases:—

℞. Tincturæ ferri perchloridi, ♏xx
Liquoris calcis, ℥j M.

Sig.—For an enema, repeated as necessary.

When the prurigo is dependent on or complicated with a congested condition of the rectum, the following suppository is employed:—

℞. Acidi tannici, gr.xv
Pulveris opii, gr.j
Glycerinæ, ♏ij
Saponis duri, gr.viij. M.

COSMETIC POWDER.

As a sedative and cosmetic in various eruptions of the face, the following combination is employed:—

℞. Bismuthi subnitratis, ʒ vj
Plumbi chromatis, gr.x
Carmini,
Cinnabaris factitiæ, āā gr.v. M.

Sig.—To be applied as needed.

Instrument of Resuscitation.

A Frenchman has the credit of inventing an apparatus for aiding in the resuscitation of persons apparently drowned, or who, from any other cause, have been temporarily deprived of animation. It consists of a cylinder of sheet iron large enough to contain the body of an adult person. It is closed at one end, and the inanimate individual is inserted, feet foremost, in the receptacle, as far as the neck, round which there is placed a padded diaphragm, fastened to the cylinder so as to be air tight. An air pump, attached to an opening in the tube, creates a partial vacuum, and then the outer atmosphere, by its own pressure, forces its way into the lungs by the mouth and nostrils, which are left exposed. By a reversed action of the pump the air is allowed to reënter the cylinder, and respiration is thereby reëstablished. A glass plate inserted in the iron casing enables the operator to watch the movements of the chest, which rises and falls as in life, with the working of the pump. The action may be repeated, it is stated, eighteen times in a minute, an exact imitation of natural breathing being thus produced.

Treatment of Ingrown Toe Nail.

Dr. James McEvoy says, in the Louisville *Medical News*, that he has found the following simple plan effective:—

A small, wedge-shaped piece of sponge tent is cut and inserted under the ingrown part of the nail, as far as possible. The size of the sponge is increased at each insertion, which is generally every third day. If there is a fetid discharge, the sponge is dipped in carbolized oil before using.

In the Chicago *Medical Journal and Examiner*, Dr. Andrews gives the following operation, as that of a chiropodist, named Willard:—

He neither extracts the nail nor slices off the overlapping flesh, but cuts out a narrow ellipse of tissue near the nail and parallel to its border, claiming that the border itself, where it rests against the edge of the nail, has its special structure adapted to its location, and ought not to be sacrificed. The removal of the strip of flesh being accomplished, he brings the edges of the wound together with fine sutures, thus drawing the border away from the nail and effecting a cure.

Massage Applied to the Eyes and the Tonsils.

Dr. H. Pagenstecher has used massage to the eyes successfully, in episkleritis, keratitis and other cases (Schmidt's *Jahrbücher*). He seizes the upper lid near the edge, and then rubs it with gentle pressure radially, from the centre of the cornea, and toward the equator bulbi.

Dr. Quinart, of Belgium, according to the London *Medical Record*, recommends, in cases of chronic hypertrophy of the tonsils, gargles of alum, combined with a massage of the tonsils, to be executed at first by the physician, later on by the patient himself. The index finger is put into some alum powder, introduced into the patient's mouth, and the gland rubbed with it in all possible directions, at first softly, later on more vigorously. After this the patient washes his mouth with an emollient gargle. In two cases the author has obtained a cure within one month, by the application of this at once mechanical and astringent treatment.

Smoking Medicines.

Smokers can now have their medicines prepared to please them, as suggested by Dr. Reginald E. Thompson, in the *Practitioner*, for April. A standard paper is formed by saturating Swedish filtering paper in a solution of nitrate of potash, with tincture of tobacco and oil of aniseed, to destroy the unpleasant odor of burnt paper. Swedish filtering paper, size 4x2½ inches; potassæ nitratis, gr.½; tincturæ tabaci, ♏x (made with 2½ ounces of leaf to a pint of spirit); ol. anisi, ♏½. A solution of any drug desired is used to saturate the paper, and so the dose can be exactly regulated, the tobacco not causing any appreciable effect on the system. Opium was the drug used, which, in

doses of one-sixty-fourth of a grain, was found sufficient to begin with.

Naphthalin in Pertussis.

Dr. J. Pirnat, of Evansville, Indiana, writes us:—

I have, for the last sixteen months, tried the naphthalin treatment in pertussis. In my experience it surpasses all the remedies known to me for this disease. It not only relieves the patient, but it cures, in between two and four weeks. My experience extends to ten cases, three of which are still under observation.

The naphthalin in its pure state cannot be given, on account of its offensive and most unbearable smell. I prepare the liquor naphthalini, which the most delicate infant can take in sugar water, with pleasure as well as safety. I shall still further extend my trials, as well in pertussis as in other spasmodic diseases, as opportunity offers itself to me, and shall publish the result, through your journal, at some future time.

Endermic Use of Morphia by "Thimble Blistering."

This method is thus described by Dr. J. C. Watson, in the Virginia *Medical Monthly*—

An ordinary sewing thimble, a little loosely picked up raw cotton, enough aqua ammoniæ (strong) to saturate the cotton without running out, are the preliminary agents required. Gently press the thimble over the selected spot until a sensation of heat has been felt for two or three minutes; wipe away any ammonia which may remain on the surface; now, with the finger, rub away the superficial skin; apply dry morphia by at first gently rubbing on, and then carefully adding a drop of water. A small quantity of morphia may be repeated at short intervals, until your patient feels its effects or is satisfied with the relief obtained.

Malarial Diseases in Illinois.

Dr. J. W. Donnally, of Doddsville, Ill., writes us—

"The presence of malarial fever has never been so general in Central Illinois during the spring and early summer months. We had a dry winter and remarkably dry spring and summer, so far. What gives rise to the malaria? Purpura hemorrhagica is also somewhat common."

Any of our readers with recent experience in this class of diseases will do us a favor by communicating their most successful treatment.

Pyloric Incontinence.

This is a condition in which there is a continuous communication between the stomach and intestines. In order to test whether the pylorus has retained its power of contraction, the stomach is filled with carbonic acid. This is done by giving the patient a drachm and a half of tartaric acid in a little water, and a short time afterward the same quantity of bicarbonate of soda. If the pylorus be able to contract, the stomach alone is inflated, as can be easily ascertained by percussion; but if the pylorus be relaxed, the carbonic acid passes into the intestines. The latter then become tympanitic, thus rendering it impossible to trace the circumference of the stomach by percussion. In Germany Dr. Ebstein has twice had the opportunity of seeing his diagnosis of incontinence of the pylorus verified by the post-mortem examination. In both cases the patient had suffered from cancer of the pylorus; in the one, the incontinence had been complicated by stricture of the pylorus; in the other, the incontinence was owing to its destruction. He had also diagnosed incontinence of the pylorus in six other cases, five of which were probably cancers of the pylorus. Any other disease of the pylorus, *e.g.*, ulcer, would doubtless give rise to the same affection. A purely nervous cause, such as colic, gastric spasm, etc., might give rise to incontinence of the pylorus.

Prevention of Color Blindness.

M. Delbœuf has found that if a person afflicted with Daltonism looks through a layer of fuchsine in solution his infirmity disappears. A practical application of this discovery has been made by M. Javal, by interposing between two glasses a thin layer of gelatin, previously tinted with fuchsine. By regarding objects through such a medium, all the difficulties of color blindness are said to be corrected. Experiments in this city, by Dr. P. D. Keyser, affirm the success of this method.

Ice Cream and Beef Juice.

As an excellent dietary article, this is praised by Dr. J. J. Tucker, in the Chicago *Journal*. His formula is—

℞.	Cream,	120 grams
	Sugar,	30 "
	Extract of vanilla,	8 "
	Beef juice,	8 "

Any confectioner can make it, or it may readily be prepared at home, with a freezer. Its uses are obvious.

Ipecac. in Dysentery.

Dr. Thomas Clarke, of Jamaica, W. I., bears strong testimony to the value of ipecac. in the dysenteries of that tropical island. In an address published in the *British Medical Journal*, he says:—

An endemic disease in which (within my own limited sphere, at any rate) I recognize a greatly improved treatment, is dysentery, both acute and chronic; ipecacuanha constituting the great basis of that success. Not that I mean to say that the use of ipecacuanha in dysentery is anything new. It was practically known, I find, in France, so long ago as 1686; but, so far as I have ascertained, its character as a specific, or something like a specific, in dysentery, was not permanently established till within the last half-century. It appears to me to be deserving of that high character, and to have brought acute dysentery, at all events—another of the most prevalent diseases of the country—within the category of tropical diseases which are perfectly amenable to medical treatment; and to be deserving of great confidence also, if it be not an indispensable agent, in the treatment of the chronic dysentery.

How to Give Podophyllin.

This drug is especially valuable in small and continued doses, as an alterative. But it should not be given in pill form, as it acts, in that shape, irregularly and sometimes disastrously. Dr. Horace Dobell, of London, recommends the following as a most satisfactory form for its exhibition:—

℞.	Podophylli,	gr. ij	
	Essentiæ zingiberi,	℥ ij	
	Spir. vini. rectif. ad	℥ ij	M.

Sig.—A teaspoonful in a wineglassful of water every night, or every second, third or fourth night, as required.

He has used this prescription for years "with the happiest results."

What Form of Blindness did Homer have?

Modern investigation is reinstating the blind old bard. Dr. Schliemann has proved that he sung of a real Troy and an actual war. Recent critics concede him to have been a true poet and not a myth or a mere collector, as Wolfe taught. And now another Wolfe, this time a surgeon, and of Glasgow, has published a pamphlet, in which he is pretty successful in showing that the singer of the Iliad certainly had an ocular defect, not color blindness, as Mr. Gladstone thinks, but amblyopia, from Egyptian ophthalmia. The evidence is collected from the treatment of colors in the poem.

Correspondence.

Popular Notions on the Subject of Stuttering.

Ed. Med. and Surg. Reporter:—

In some sections of this county many of the negro population, and a portion of the illiterate whites, believe if a stammerer is made to sleep with his mouth full as possible of raw beans, peas, or any similar small, round objects, it will prove a sure cure of the trouble, if persevered in every night for two or three weeks; and some well authenticated cases can be shown of persons that were once stutterers in the extreme, who, after a few weeks of said treatment no longer show much, if any, inclination to do so. And the habit is said never to return. How such an effect can by such means be accomplished is with me a question.

If stammering be the result of a disease in that portion of the brain where the so-called motor speech centres are located (and such I believe is the accepted theory), how can such treatment benefit or even tend to benefit? On the other hand, if balbuties is "owing to a born weakness of the apparatus by which syllables are coördinated," as was once supposed, could the presence of such substances in the mouth during sleep, by any stimulating effect, aid in overcoming the difficulty, or could the slight swollen condition to which they might attain by being subjected to the heat and moisture of the mouth for a few hours, benefit by dilatation or otherwise?

Should the stammering pupil be so treated each time before attempting to speak, such a device might act mentally by aiding his determination and by diminishing the anxiety to speak, thus benefiting him.

But the question is *how* or *in what way* such or similar treatment could have a beneficial effect, when instituted just prior to and during the sleeping hours, save by the possible fact that the patient knew the purpose of said treatment, and on account of it his will is strengthened, and he exerts himself to overcome his bad habit.

I hope not to be understood by the profession, or others, as recommending this as a *safe* treatment for the patient, either awake or asleep, or as ever having prescribed it.

My object in writing is twofold. First, to elicit an expression from you or some of your many readers, as to the reason of this novel, or should I say unscientific, mode of treatment. Secondly, with a hope that some of your patrons who have given this important subject and its treatment careful study may be induced to express themselves herein, for the benefit of those of us who wish to do good, but often see and feel our weakness.

J. S. Aydelott, M.D.

Snow Hill, Maryland.

[The inquiry is probably similar to that proposed by Louis XIV to the Institut—why, if a live carp is placed in a tub brimful of water, the fluid

does not overflow? The story is familiar.—Ed. Reporter.]

Suicide by Strychnia.

Ed. Med. and Surg. Reporter:—

On the 11th of June I was called to see L. D. Fletcher, who had been seized a few minutes before with convulsions. He had declined to eat breakfast that morning, and a short time afterward went to the drug store and procured three grains of strychnine, for the purpose, he alleged, of destroying rats. He immediately returned home and was seen to go to the pump with a cup in his hand, when it is supposed he took the poison. After swallowing the contents of the cup, he washed it out and returned it to its former place. Mr. F. then went into the sitting room, and after lighting his pipe, sat down on the sofa. In about fifteen or twenty minutes he fell from his seat in a convulsion. When I arrived, he was lying on the floor with eyes shut, pulse quickened, breathing a little troubled, with tremulous action of the abdomen as it rose and fell with each inspiration and expiration. He never spoke from the time he was first seized, and resisted every attempt to introduce remedies by the mouth. While I was with him he had two severe convulsions, with the last of which he had slight opisthotonos. He died while in this second convulsion, in twenty minutes after the first seizure, and about thirty-five minutes from the time he swallowed the poison.

Trappe, Md. L. Chaplain, m.d.

A Case of Substitution.

Ed. Med. and Surg. Reporter:—

On the evening of the 28th of December last we were called to attend a young lady, Kate G., who had, we learned, been the subject of a harassing cough, with profuse expectoration, for several weeks previous, but which had not until the present time occasioned the family much uneasiness. Inquiring into the history of the case, we found upon examination the upper lobe of the left lung consolidated, and rapidly breaking down, the middle studded with patches of consolidation, and the apex of the right lobe in a similar condition. The patient was weak and anæmic, but not confined to her room; diagnosed acute phthisis, and in connection with a ferruginous tonic, prescribed for the night sweats, which were very copious, the following—

R.	Dextro-quiniæ,	grs. lxiv	
	Acid. sulph. dil.,	f. ʒ ij	
	Syrup. zingiber.,	f. ʒ j	
	Aquæ, q.s., ad	f. ʒ iv.	M.

Sig.—Dessertspoonful as directed.

On the evening of January 2d we saw our patient, who was much worse than previously, and said that the medicine had caused her so much nausea and vomiting that she had not only been obliged to discontinue its use, but that she had been unable since to retain anything upon her stomach, on account of the irritability produced by the medicine.

Upon asking for the medicine prescribed we were startled by its appearance. Instead of its being a dark, wine-colored solution, which it should have been if properly prepared, it was perfectly colorless, while its slight fluorescence and bitter taste bore evidence of its containing one of the cheaper alkaloids of the cinchona. A qualitative analysis showed this to be the case, and that instead of dextro-quinine, as prescribed, the sulphate of cinchona had been used as a substitute, which substitution no doubt had been the cause of the patient's suffering, besides hastening her death (for she never recovered her appetite), which occurred a few weeks later.

For the occurrence of these cases there seems but one safeguard, viz.: to send prescriptions to those druggists known as well for their commercial honesty as for their pharmaceutical ability. It is a pleasure to say that no city numbers more of these than our own. For the welfare of the profession in general, it behooves them to see that none other receive their prescriptions, since in this, as in many other cases, it is the "ounce of prevention" that is needed.

Rich. V. Mattison, m.d.

Philadelphia, July 4, 1879.

York County Medical Society.

Ed. Med. and Surg. Reporter:—

The York County Medical Society held its monthly meeting on Thursday, July 10th, at Wild Cat Falls, on the Susquehanna river, nearly opposite the town of Marietta. About thirty physicians, including those invited from Lancaster county and Harrisburg, were present. The York county doctors had their families with them, which swelled the whole number up to about seventy-five.

After a very pleasant picnic entertainment, the doctors, with their families, convened in the large hall on the grounds, and were kindly welcomed and thanked for their attendance, by Dr. T. M. Lochman, President of the York County Society, which was happily responded to by Dr. H. L. Orth, of Harrisburg. The regular order of business of the Society was dispensed with, and the Secretary, Dr. S. J. Rouse, announced that Dr. W. S. Roland had been requested to prepare an essay for the occasion, whereupon the Doctor read a paper on "Our Profession Then and Now," which was received as the property of the Society and a vote of thanks tendered him.

The Executive Committee of McCall's Ferry Medical Association met at the same place, to make arrangements for their annual meeting, and it was decided to hold the next meeting at McCall's Ferry, on Thursday, August 28th, and to invite the families and friends of the members.

McCall's Ferry is on the Susquehanna river, reached by railroad running from Columbia to Port Deposit. The road is picturesque all the way down.

The Association at present comprises the medical societies of Lancaster, York, Dauphin and Cumberland counties, and I learn that it is the intention of the Committee to invite other societies and physicians to the meeting. I favor,

not only county societies having their meetings in different localities in the county, but most strongly an annual union or reunion meeting of several adjoining county societies, for these meetings must tend to foster friendship, elevate dignity, and advance the standard of professional interests. R.

York, July 14th, 1879.

A Simple Cure for Ulcer of the Rectum.

ED. MED. AND SURG. REPORTER:—

I have been subject to piles for about five years; they troubling me more especially through the busy season of the year (viz., the summer and autumn months).

Last season, with the return of summer sickness, my piles returned also, in an aggravated form.

About one-half the territory of my practice is so broken that I am compelled to travel on horseback. This source of irritation prevented a successful therapeutical application; consequently, the tumor soon disgorged itself, and hemorrhage more or less followed for two or three months, gradually ceasing, and instead, a purulent discharge took its place, annoying me very much by its filthiness, and the thought that the ulcer would terminate in a fistula.

I used various local applications, as lead, zinc, ssl. sol. of tannin in glycerine, cold water, etc., but with only temporary benefit. About two months ago I commenced the practice of bathing my fundament in cold water immediately after defecation, thoroughly cleansing the rectum to a point above the ulcer, and then stuffing the rectum in the vicinity of the ulcer with dry tannin.

I followed this treatment regularly for two weeks, at which time I found the discharge had ceased and all unpleasant sensations were gone. Up to this period I have had no return of discharge or any symptoms of the presence of the ulcer, notwithstanding I am riding from ten to twenty miles a day. J. J. FLY, M.D.

Pulley's Mill, Ill., July 18th, 1879.

Scrofulous Abscess.

ED. MED. AND SURG. REPORTER:—

A few years ago a lady relative of the writer had been for a long time very much annoyed by a constantly recurring abscess of the so-called scrofulous nature, situated always in the glands of the left axilla. So frequently did these "gatherings" occur that, at times, scarcely had one healed up ere there were premonitions of its successor. The usual remedial agents were one after another used, either without the slightest avail or with a merely palliative effect. Finally, the following combination was given to her:—

℞ Syr. rumicis crispi,
Ext. stillingiæ, fl
Ext. sarsaparillæ, fl āā

A teaspoonful was given three or four times per day, with singularly marked success as the result. The murmuring intimations of an incipient abscess were promptly quelled, and from that day to this, by an occasional resuming of the medicine, she has altogether avoided a recurrence of the abscess. Since that time I have had occasion to use the same preparation in similar cases, and always with the same gratifying effect. Though prescribed in the case first mentioned by other than a regular physician, it certainly deserves consideration and trial at the hands of the profession. As to the efficiency of the combination, I am satisfied, as to the active agent or agents entering into the formula, there may be a question. The alterative power of stillingia sylvatica cannot be mooted; it is one of the most valuable of its group. Rumex crispus, though ignored by many of our writers on materia medica, is not inferior in this respect to stillingia. I am sure of its depurating power, from trial and observation. As to the value of sarsaparilla, I think the profession must agree with Bartholow, who says, "It is extremely questionable whether sarsaparilla has any therapeutic power." J. W. HICKMAN, M.D.

1945 *N. 11th St., Phila.*

"Tartar Emetic in Rigidity of the Os Uteri."

ED. MED. AND SURG. REPORTER:—

In the number of the MEDICAL AND SURGICAL REPORTER for July 12th, I find, reported by Dr. J. A. Irvine, an illustrative case of the efficacy of tartar emetic in rigidity of the os uteri. Like Dr. Irvine, I also was a quondam pupil of the late Dr. Hall, of Montreal, therefore, I hope it may not seem presumptious in me to offer further testimony in favor of the use of tartar emetic in this complication of labor. By referring to my obstetrical records, I find there reported 218 cases of labor. Of this number 167 were complicated with rigidity of the os, in which tartar emetic was given in small and repeated doses, with astonishing good effects. My mode of administering it is to dissolve one grain in twelve teaspoonfuls of water, of which solution a teaspoonful is to be given every fifteen minutes, until the os is fully dilatable.

One fault I find with most general practitioners (non-obstetricians), is that they will give ergot in all cases of labor indiscriminately, without any regard to the condition of the os, and in cases where there is rigidity I am fully convinced that this mode of practice tends more to retard the progress of labor than to accelerate it.

A. O. SIMPSON, M.D.

Thompson, Pa., July 17th, 1879.

NEWS AND MISCELLANY.

Items.

—*Correction.*—In the formula quoted from Dr. W. F. Hines, on page 57 of this volume, the amount of water and syrup should be of each ℥ ss instead of ʒ ss.

—The Indianapolis *News* says: The Government has contracted for 8000 bottles of carbolic acid, to be used as a disinfectant in the army The acid is to be put up in Jeffersonville.

Personal.

—M. Koeberle, of Strasburg, has, during the last four years, performed 100 ovariotomies, with 89 recoveries and 11 deaths. In 1878 he performed 4 gastrotomies, only one of which proved fatal.

—In the organization of a permanent Board of Health, under the Tennessee State Act, at Knoxville, Tennessee, last month, Dr. A. B. Tadlock, who has been a contributor to the columns of the REPORTER for several years, was chosen President, and Dr. J. P. Park, Secretary.

—Dr. Laurence Turnbull, of this city, has sailed, to attend the British Medical Association, which meets at Cork, August 5th. He has been invited by the President and Committee of Reception of the Association to read a paper on "Tinnitus Aurium," and open the discussion before the Sub-Section on Otology. Dr. Sayre, of New York, opens the discussion on his plaster jacket, and Professor Barnard delivers the opening address on Surgery.

—The charges against Dr. William A. Hammond and others, who insisted on an investigation of the management of the New York Insane Asylums, diligently circulated by the Albany *Argus*, the Buffalo *Medical Journal*, the St. Louis *Medical and Surgical Journal*, etc., have been denied and refuted by Dr. Hammond; and from a careful perusal of the statements published by each side, we are of opinion that Dr. Hammond is right in this controversy, and that Dr. Gray, of Utica, his principal opponent, has placed himself in an unworthy position.

American Ophthalmological Society.

This Society held its regular session this year at Newport, R. I., commencing July 24th. The following officers were elected for the ensuing year: President, H. D. Noyes, of New York; Vice President, W. F. Norris, of Philadelphia; Secretary and Treasurer, Dr. R. H. Derby, of Boston; Corresponding Secretary, J. S. Pronte, of Brookline; Publication Commissioners, E. G. Loring and D. B. St. John Roosa, both of New York. It was voted to hold the next annual meeting in Newport.

The Quinine Trick.

Just as we predicted, and as it required no extraordinary insight to foretell, no sooner was the duty taken off quinine than the price in London has risen from one to two shillings an ounce, with a corresponding rise in this country. Why? Because Congress, while taking the duty off quinine, left it on cinchona bark, and also left the heavy taxes on the alcohol and solvents, which the American manufacturers have to pay and the foreigners do not, and thus virtually drove the former out of the business of making the alkaloid, and threw the whole control of it in the hands of foreign manufacturers and drug brokers. These can now make us pay pretty much what they please, and we need not expect, and don't deserve, mercy at their hands. This is the result of the policy of secret dealing and political wire pulling which we referred to on page 61 of this volume; this is the fruit of an avoidance of a fair and open discussion of the question before taking action upon it.

Vaccination Items.

—The vaccine physicians of the Board of Health of this city have vaccinated nearly six thousand children in the city and suburbs this year. Nearly five thousand have been vaccinated since the 1st of April. The physicians are paid forty cents for each city case, and seventy-five cents for each case in the rural districts.

—The French Society of Hygiene, in Paris, has just opened an establishment where vaccination is carried on gratis. Lymph, both from the infant and from the heifer, is always kept on hand, and delivered to any one upon application.

QUERIES AND REPLIES.

Dr. J. W. C., of Ala. 1. Is the general opinion of the profession in favor of iced drinks *ad lib.*, in measles and similar febrile complaints? 2. Can the febrile symptoms be relieved by any other means than by opiates, diaphoretics and refrigerant drinks?

ANS. 1. We believe it is. 2. Baths, affusions, cool air and specific antipyretics may be suggested.

Dr. J. N. P., of Iowa. Will you, or some reader of the MEDICAL AND SURGICAL REPORTER, give me the best receipt to apply to the *red surface* after psoriasis has been cured?

ANS.—The redness is owing to enlarged capillaries; painting the part with collodion, or with styptic collodion, would probably contract them. A solution of solid extract of ergot has also been used locally in such cases.

Dr. F. P., of Mo. Vertigo arises from so many causes that we can make no suggestions in your case. Dr. Ramskell, who writes on it in Reynolds' *System of Medicine*, treats it, if from gastric causes, with alkaline purges, followed by a course of strychnia; 'essential vertigo' he finds most benefited by iron and strychnia, alternated with tincture of larch and digitalis. He attributes, in fact, the former to weakness of the stomach, and the latter to atrophy of the heart.

State Med. Yes, in Malta, both medicine and medical attendance are furnished free by the Government, to all the inhabitants, civil and military, rich and poor. For all that, many prefer to pay their own doctor and buy their own medicines.

Senex. An article on the subject will be published shortly.

MARRIAGES.

IRWIN—MATHER.—May 28th, at the M. E. parsonage, Fostoria, Central Ohio Conference, by Rev. D. D. Mather, pastor, Joseph W. Irwin, M.D., of Evansville, Ind., and Miss Stella Idalette Mather, daughter of the officiating minister.

PATTERSON—WHITNEY.—In Lowell, May 20th, by the Rev. G. L. Westgate, assisted by Rev. C. D. Barrows, of the Kirk Street Congregational Church, David N. Patterson, M.D., and Miss Adeline S. Whitney, younger daughter of George T. Whitney, Esq., all of Lowell.

SCHAUS—JOHNSON.—On Tuesday, June 17th, at the residence of the bride's parents, St. Louis, Mo., Hermann Schaus, of New York, and Emilie Desruisseaux Johnson, eldest daughter of Dr. I. B. Johnson.